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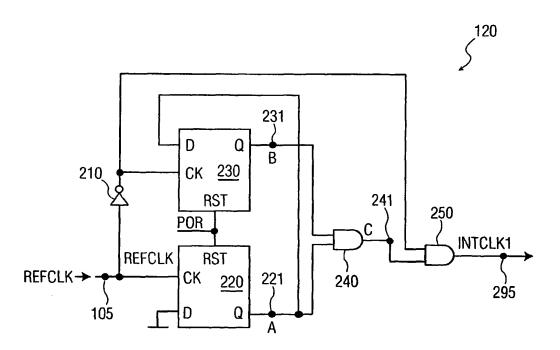
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[Continued on next page]

(54) Title: LOW LOCK TIME DELAY LOCKED LOOPS USING TIME CYCLE SUPPPRESSOR



(57) Abstract: The invention discloses a delay locked loop (DLL) architecture with a time cycle suppressor circuit suitable for use with synchronous integrated circuits containing a clock generator. Utilization of the improved delay locked loop architecture with a time cycle suppressor circuit disclosed herein enables reduction in the lock time of the synchronous circuit.

WO 2004/055989 A3



ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declaration under Rule 4.17:

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For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

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A. CLASS	FICATION OF SUBJECT MATTER	L7/033					
According to	o International Patent Classification (IPC) or to both national classification and IPC	· - ·					
	SEARCHED						
IPC /	ocumentation searched (classification system followed by classification symbols) H03L H03K H04L						
	tion searched other than minimum documentation to the extent that such documents are included in the fields se						
	ata base consulted during the international search (name of data base and, where practical, search terms used)						
EPO-Internal, PAJ, WPI Data							
	ENTS CONSIDERED TO BE RELEVANT						
Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.					
A	US 6 417 705 B1 (TAFT ROBERT C ET AL) 9 July 2002 (2002-07-09) column 11, line 53 - column 12, line 15;	1-12					
	figure 10						
A	US 5 001 374 A (CHANG PAUL S)	1-12					
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•	11 July 2000 (2000-07-11) column 24, line 16 - column 25, line 36; figure 16						
Α	EP 0 654 907 A (MATRA MHS) 24 May 1995 (1995-05-24)	1-12					
i	column 7, line 51 - column 8, line 10; figure 4						
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Furth	ner documents are listed in the continuation of box C. Ratent family members are listed in	ı annex.					
° Special ca	tegories of cited documents ;						
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Date of the actual completion of the international search 12 March 2004	Date of mailing of the International search report
Name and mailing address of the ISA European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Authorized officer Waters, D

INTERNATIONAL SEARCH REPORT

International application No. PCT/IB 03/05810

Box I	Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)
This Inte	rnational Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:
1.	Claims Nos.: because they relate to subject matter not required to be searched by this Authority, namely:
	Claims Nos.: because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
	Claims Nos.: because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).
Box II	Observations where unity of invention is lacking (Continuation of item 2 of first sheet)
This Inter	national Searching Authority found multiple inventions in this international application, as follows:
	see additional sheet
1	As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2	As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
з А	as only some of the required additional search fees were timely paid by the applicant, this International Search Report overs only those claims for which fees were paid, specifically claims Nos.:
	to required additional search fees were timely paid by the applicant. Consequently, this International Search Report is estricted to the invention first mentioned in the claims; it is covered by claims Nos.:
Remark or	The additional search fees were accompanied by the applicant's protest. No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

ion on patent family members

international Application No
PCT 3 03/05810

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